

AMENDMENTS TO THE CLAIMS

1-13 (Canceled)

14. (New) A picture coding apparatus which codes pictures on a picture-by-picture basis, and generates a random access unit as a part of a stream, the random access unit including the coded pictures, said apparatus comprising:

a coding unit operable to generate pieces of coded picture data by coding the pictures on a picture-by-picture basis;

an information generation unit operable to generate pieces of picture parameter set information, each of which is a parameter group to be referenced for decoding each piece of the coded picture data;

a first storage unit operable to store the pieces of the coded picture data respectively into access units that constitute the random access unit; and

a second storage unit, based on a predetermined condition, operable to store each pieces of the picture parameter set information into a first access unit that is located at a head of the random access unit, or into an access unit in which a piece of the coded picture data that refers to the piece of the picture parameter set information is stored,

wherein said second storage unit is operable to store a plurality of the pieces of the picture parameter set information into the first access unit, and to limit the number of pieces of the picture parameter set information stored in the first access unit.

15. (New) A picture decoding apparatus which accesses a stream by a random access unit, the stream generated by said picture coding apparatus according to Claim 14, and decodes pieces of coded picture data, said apparatus comprising:

a picture specification unit operable to specify a part of the pieces of the coded picture data to be decoded from the pieces of the coded picture data so as to specify a piece of the coded picture data stored in a first access unit that is located at a head of the random access unit;

an obtainment unit operable to obtain, from the first access unit or an access unit which stores the coded picture data to be decoded, picture parameter set information which is a parameter group referenced for decoding the coded picture data to be decoded; and

a decoding unit operable to decode the coded picture data to be decoded by referring to the picture parameter set information.

16. (New) A picture coding method for coding pictures on a picture-by-picture basis, and generating a random access unit as a part of a stream, the random access unit including the coded pictures, said method comprising:

generating pieces of coded picture data by coding the pictures on a picture-by-picture basis;

generating pieces of picture parameter set information, each of which is a parameter group to be referenced for decoding each piece of the coded picture data;

first storing the pieces of the coded picture data respectively into access units that constitute the random access unit; and

second storing, based on a predetermined condition, each pieces of the picture parameter set information into a first access unit that is located at a head of the random access unit, or into an access unit in which a piece of the coded picture data that refers to the piece of the picture parameter set information is stored,

wherein, in said storing, a plurality of the pieces of the picture parameter set information are stored into the first access unit in said second storing, and the number of pieces of the picture parameter set information, stored in the first access unit, is limited.

17. (New) A picture decoding method for accessing a stream by a random access unit, the stream generated by said picture coding apparatus according to Claim 16, and decoding pieces of coded picture data, said method comprising:

specifying a part of the pieces of the coded picture data to be decoded from the pieces of the coded picture data so as to specify a piece of the coded picture data stored in a first access unit that is located at a head of the random access unit;

obtaining, from the first access unit or an access unit which stores the coded picture data to be decoded, picture parameter set information which is a parameter group referenced for decoding the coded picture data to be decoded; and

decoding the coded picture data to be decoded by referring to the pieces of picture parameter set information.

18. **(New)** A recording method for coding pictures on a picture-by-picture basis, and recording a stream including a random access unit having the coded pictures into a computer-readable recording medium, said recording method comprising:

generating pieces of coded picture data by coding the pictures on a picture-by-picture basis;

generating pieces of picture parameter set information, each of which is a parameter group to be referenced for decoding each piece of the coded picture data;

first storing the pieces of the coded picture data respectively into access units that constitute the random access unit; and

second storing, based on a predetermined condition, each pieces of the picture parameter set information into a first access unit that is located at a head of the random access unit, or into an access unit in which a piece of the coded picture data that refers to the piece of the picture parameter set information is stored,

wherein, in said second storing, a plurality of the pieces of the picture parameter set information are stored into the first access unit in said second storing, and the number of pieces of the picture parameter set information, stored in the first access unit, is limited.